

# US2AW~US2MW

Rev.A Oct.-2018

## 描述 / Descriptions

超快恢复二极管，反向电压：50V~1000V，正向电流：2.0A，SOD-123FL 封装。  
Surface Mount Ultrafast Recovery Rectifier, Reverse Voltage: 50 to 1000V, Forward Current: 2.0A, SOD-123FL package.

## 特征 / Features

玻璃钝化芯片，效率高，无铅符合 2011/65/EU 欧盟 RoHS 指令，适用于表面贴装。无卤产品。  
Glass Passivated Chip Junction, High efficiency, Lead free in comply with EU RoHS 2011/65/EU directives, For surface mounted applications. Halogen free product.

## 用途 / Applications

一般用途。  
General purpose.

## 内部等效电路 / Equivalent Circuit

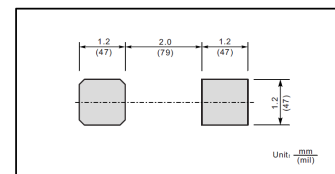


## 引脚排列 / Pinning



PIN	DESCRIPTION
1	Cathode
2	Anode

The recommended mounting pad size



## 印章代码 / Marking

见印章说明。See Marking Instructions.

**极限参数 / Absolute Maximum Ratings(Ta=25°C)**

参数 Parameter	参数符号 Symbol	数值 Rating							单位 Unit
		US2AW	US2BW	US2DW	US2GW	US2JW	US2KW	US2MW	
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current at $T_C = 125^\circ\text{C}$	$I_{F(AV)}$	2.0							A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load	$I_{FSM}$	50							A
Typical Thermal Resistance <sup>(2)</sup>	$R_{\theta JA}$ $R_{\theta JC}$	75 22							$^\circ\text{C/W}$
Operating and Storage Temperature Range	$T_j, T_{stg}$	-55~+150							$^\circ\text{C}$

Note:

- 1) Measured with  $I_F = 0.5\text{ A}$ ,  $I_R = 1\text{ A}$ ,  $I_{rr} = 0.25$ .
- 2) P.C.B. mounted with 2.0" X 2.0" (5 X 5 cm) copper pad areas.

**电性能参数 / Electrical Characteristics(Ta=25°C)**

参数 Parameter	参数符号 Symbol	测试条件 Test condition	数值 Rating							单位 Unit
			US2AW	US2BW	US2DW	US2GW	US2JW	US2KW	US2MW	
Maximum Instantaneous Forward Voltage	$V_F$	$I_F=2.0\text{A}$	1.0			1.3	1.68			V
Maximum DC Reverse Current at Maximum DC Blocking Voltage	$I_R$	$T_a=25^\circ\text{C}$	5.0							uA
		$T_a=125^\circ\text{C}$	100							
Maximum Reverse Recovery Time <sup>(1)</sup>	$T_{rr}$	$I_F=0.5\text{A}$ $I_R=1.0\text{A}$ $I_{rr}=0.25\text{A}$	50				75			ns

电参数曲线图 / Electrical Characteristic Curve

Fig.1 Forward Current Derating Curve

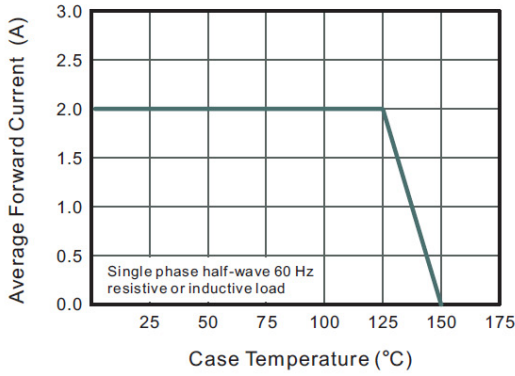


Fig.2 Typical Reverse Characteristics

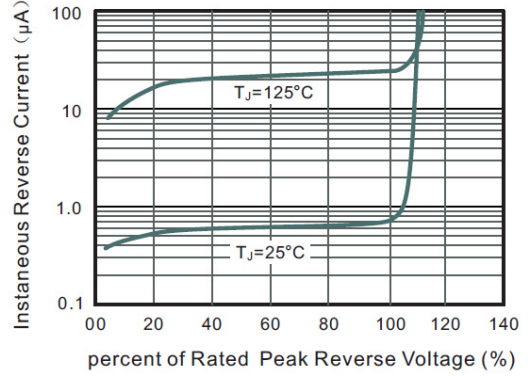


Fig.3 Typical Forward Characteristics

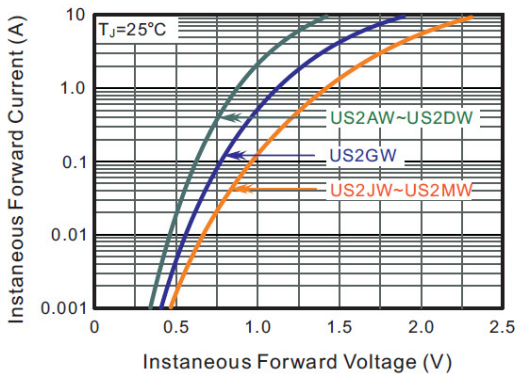
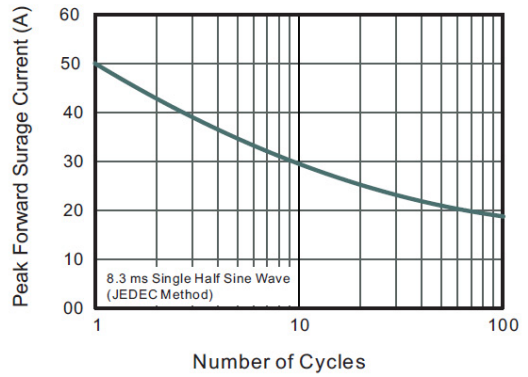
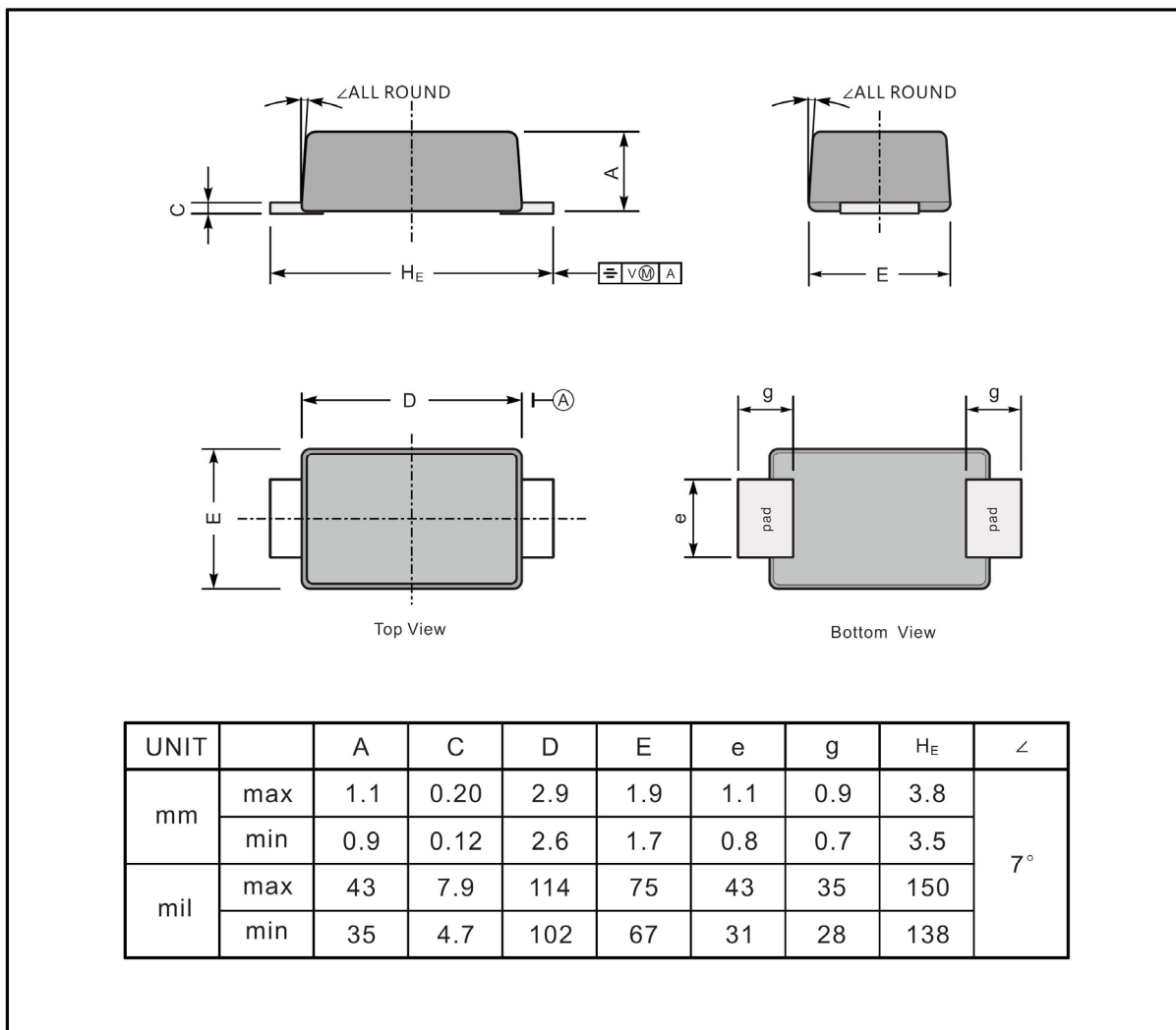


Fig.4 Maximum Non-Repetitive Peak Forward Surge Current



外形尺寸图 / Package Dimensions

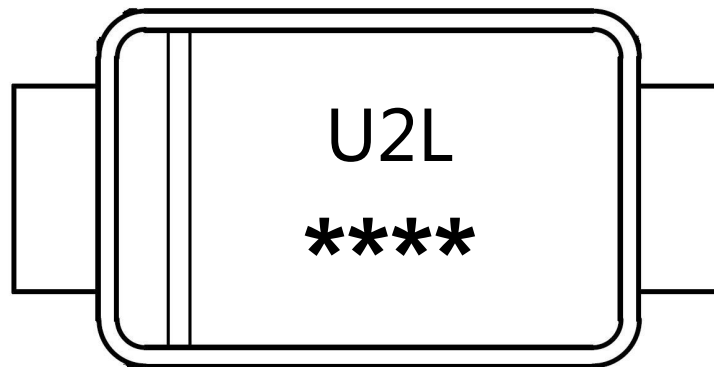
SOD-123FL



## Marking

Type number	Marking code
US2AW	U2L
US2BW	
US2DW	
US2GW	U2M
US2JW	U2H
US2KW	
US2MW	

印章说明 / Marking Instructions



说明：

U2L： 为型号代码

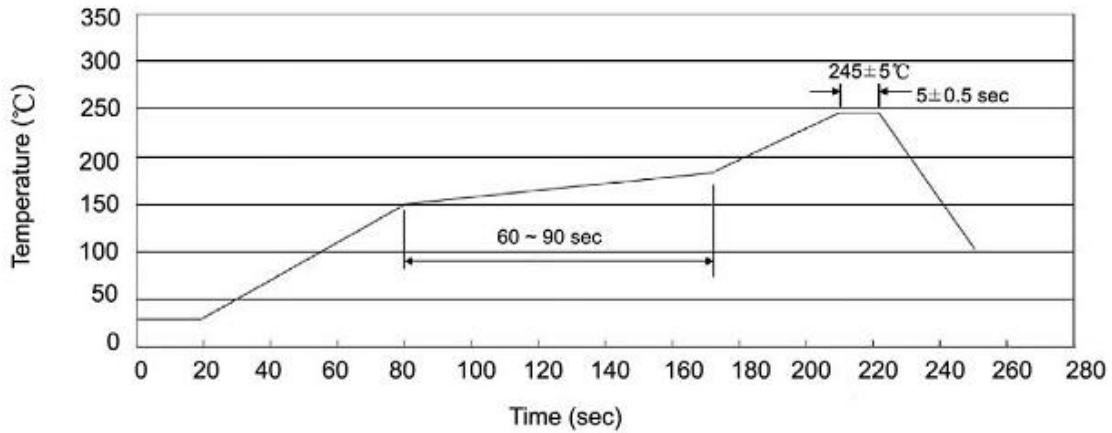
\*\*\*\*： 为生产批号追溯码，第1个\*为年月代码，后面3个\*为当月小批号代码

Note:

U2L： Product Type Code

\*\*\*\*： Lot No. Code ,The 1st \* means:YM Code ,The last 3 \* means:little Lot No Code

**回流焊温度曲线图(无铅) / Temperature Profile for IR Reflow Soldering(Pb-Free)**



说明：

- 1、预热温度 150~180°C，时间 60~90sec;
- 2、峰值温度 245±5°C，时间持续为 5±0.5sec;
- 3、焊接制程冷却速度为 2~10°C/sec.

Note:

- 1.Preheating:150~180°C, Time:60~90sec.
- 2.Peak Temp.:245±5°C, Duration:5±0.5sec.
3. Cooling Speed: 2~10°C/sec.

**耐焊接热试验条件 / Resistance to Soldering Heat Test Conditions**

温度：260±5°C

时间：10±1 sec.

Temp.:260±5°C

Time:10±1 sec

**包装规格 / Packaging SPEC.**

卷盘包装 / REEL

Package Type 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm <sup>3</sup> )		
	Units/Reel 只/卷盘	Reels/Inner Box 卷盘/盒	Units/Inner Box 只/盒	Inner Boxes/Outer Box 盒/箱	Units/Outer Box 只/箱	Reel	Inner Box 盒	Outer Box 箱
SOD-123FL	3000	8	24000	5	120000	7" ×11	185X180X105	390X385X205

**使用说明 / Notices**